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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,093	02/08/2001	Davin G. Saderholm	14094	1672

7590 01/05/2004

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EXAMINER

ILAN, RUTH

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,093

Applicant(s)

SADERHOLM ET AL.

Examiner

Ruth Ilan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 73-76 is/are allowed.
- 6) ☒ Claim(s) 48-58, 60-63 and 65-72 is/are rejected.
- 7) ☒ Claim(s) 59 and 64 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 48, 49, 50, 52, 60, 61, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neidert (US 6,176,513 B1) in view of Keshavaraj (US 6,299,204 B1.) Neidert (Figure 3) teaches a safety restraint apparatus for protecting occupants of a vehicle including first and second cushion portions (13,17) positioned proximate first and second lateral surfaces (front and rear windows) so as to protect an occupant of a front and rear seat, respectively. Also included is a sail portion (unnumbered thinner portion between 17 and 13, marked by the Examiner in Figure 3) However, the cushion of Neidert is one-piece construction, and does not include first and second cushion portions that are separate pieces from the sail portion. It would have been obvious to one having ordinary skill in the art at the time of the invention to make the one-piece air bag of Neidert in three separate pieces, including a first, second, and sail portion, in order to provide a manufacture that does not require large sizes of stock material. Additionally, it has been held that to make a formally integral structure from separate pieces involves only routine skill in the art. In re Dulberg, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) Additionally, Keshavaraj teaches that it is known in the art to be useful to form large sections of air bags from two or more pieces (see col. 4, lines 61-col. 5, line 1) because it is more cost effective. It would have been obvious to one having ordinary skill in the art at

the time of the invention to form the one-piece air bag of Neidert in three separate pieces, since Keshavaraj teaches that using several pieces of fabric is more cost effective. Regarding claim 50 and 61 the Examiner takes Official Notice that it is well known in the air bag art to join fabric by sewing, and other bonding methods. Regarding claim 52, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a gas tight connection between the sail ports of the first and second cushions and the ends of the sail portion, since it is well known in the art that side air bags must maintain their full gas volume in order to be useful during a rollover or side impact event. Regarding claim 65 Neidert fails to teach a second sail portion and a third cushion portion that extends to the D-column of a vehicle. It would have been obvious to one having ordinary skill in the art at the time of the invention to extend the air bag Neidert to the extra seat in a vehicle with a D-column, in order to provide protection for passengers in a vehicle with a third seat, and because it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. *St Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Additionally it would have been obvious to extend the device in the claimed manner, that is by the addition of a sail portion, and then a third cushion portion, because Neidert teaches that the sail portion is usefully thin so as to provide an air bag that does not require a large quantity of inflation fluid for those areas that do not require protection (28, see col. 2, lines 30-34.)

3. Claim 67 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neidert(US 6,176,513 B1) in view of Keshavaraj (US 6,299,204 B1) and further in view of Hawthorn et al. (US 5,423,273.) Neidert is discussed above and as discussed, it would have been obvious to one having ordinary skill in the art to construct the air bag of Neidert in various pieces. Regarding the limitations of attachment surfaces, and overlap, Hawthorn et al. teaches that it is known in the art that when fabric is joined together, it is known to overlap the connecting pieces so that the connection is enabled, and for instance in the case of a sewn connection, the seam is maintained(see for instance Figure 1, seam areas 16a, 14b) It would have been obvious to one having ordinary skill in the art at the time of the invention to overlap and connect the various pieces at attachment surfaces in order to form a sound connection.
4. The indicated allowability of claims 55-58 is withdrawn in view of further consideration of Veiga et al. Rejections based on these further considerations follow.
5. Claims 51, 53, 54, 55-58, 62 ,63, 66, 68, 69, 71 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neidert (US 6,176,513 B1) in view of Keshavaraj (US 6,299,204 B1) and further in view of Veiga et al. (US 6,239,046 B1) Neidert in view of Keshavaraj is discussed above and fails to teach polyurethane coating of the variously claimed internal and external surfaces of the first, second, and sail portions. Veiga et al. teaches coating the internal and external surfaces of an air bag with polyurethane (14) as part of a coating

process in order to provide superior heat resistance. It would have been obvious to one having ordinary skill in the art at the time of the invention to treat the internal and external surfaces of the air bag of Neidert with polyurethane, as taught by Veiga et al., in order to provide superior heat resistance during deployment of the air bag. Regarding the RF welding of the portions, Veiga et al. teaches that it is known in the art to connect air bag portions by RF welding (see col. 3, lines 26-30.) It would have been obvious to one having ordinary skill in the art at the time of the invention to RF weld mating portions of the sail portion and cushion portions of the air bag of Neidert in view of Keshavaraj, as taught by Veiga et al., since Veiga et al. teaches that RF welding to join seams is a preferred method of joining.

Allowable Subject Matter

6. Claims 73-76 are allowed.
7. Claim 59 and 64 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed October 2, 2003 have been fully considered but they are not persuasive. The Applicant states that the Examiner must find all limitations of the rejected claim in the prior art. First of all, as previously

discussed, all the elements, that is all the portions are found in the prior art device of Neidert, however they are integral with each other. The Examiner relies on common sense, case law, and prior art to establish a prima-facie case of obviousness regarding forming the air bag from separate portions. That is a skilled artisan would look at the air bag of Neidert and use three sources of motivation to form a modular assembly. First of all, common sense, smaller pieces can be cheaper to assemble because they are easier to handle. The second source of motivation is case law, *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) (See MPEP 2144.04 C) The third source is the teachings of the prior art. Keshavaraj teaches that it is known in the art to be useful to form large sections of air bags from two or more pieces (see col. 4, lines 61-col. 5, line 1) because it is more cost effective, and the Examiner's motivation to combine the teaching of Neidert with the teaching of Keshavaraj is based on this motivation. Regarding the knowledge of persons of ordinary skill in the art, it is the Examiner's position that forming an integral structure from several pieces is well within the level of ordinary skill in the art. As evidenced on page 14 of the Remarks, the Examiner understands that it is the Applicant's position that Keshavaraj is not applicable because it is non-analogous art, since the air bag of Keshavaraj is a front air bag and Neidert is a side curtain. This argument is not compelling, since it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied

upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the prior art is in the air bag art, and additionally, is pertinent to the problem, because it deals with forming air bags from cloth. The same is true for Hawthorn, who generally teaches the common sense notion that when cloth material is joined, there should be overlap.

Regarding the Veiga reference, as previously discussed, the prior art also generally teaches welding seams to minimize leakage, and as such seam leakage is not a problem. As discussed in MPEP 2143.01, the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. Where the teachings of two or more prior art references conflict, (for instance the generally recognized threat of seam leakage and the known usefulness of forming air bags from several pieces for economical reasons) the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. In *re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991) In the instant application, Keshavaraj teaches that the use of smaller pieces of fabric is economical, and a slew of prior art, including that cited below, teaches that RF welding is useful and preferred and mitigates seam leakage. RF welding is known to be a useful seaming technique, and seam leakage is a problem that has been solved in the art to a degree that the threat of seam leakage does not teach away from forming an air bag in pieces. The Applicant

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indicates that it is "the use of Applicants' enhanced treatment and assembly techniques" that allows for the modular construction. These techniques, that is coating and RF welding, are well known in the art and do not constitute an inventive step.

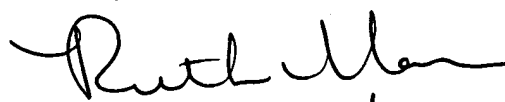
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 703-306-5956.

The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ruth Ilan
Examiner
Art Unit 3616


12/30/03

RI
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